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(54) PRODUCTION OF LOW-BITTER PEPTIDE

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a low-bitter peptide useful in e.g. foods, medical foods, seasonings, etc., without the need of any bitter-mitigating operation by making an endopeptidase having such substrate specificity as to be low in the activity to cleave the terminal of a hydrophobic amino acid act on a protein.

SOLUTION: This low-bitter peptide is obtained without the need of any special bitter-mitigating technique by the following procedure: an endopeptidase such as germinated soybean enzyme cysteine protease D3, having such substrate specificity as to be low in the activity to cleave the terminal of a hydrophobic amino acid, is added to a protein such as a separated soybean protein solution followed by adjusting the system to pH 4.5 and allowing the system to react at 37°C for 24 h; after ending the reaction, the system is treated under heating at 100°C for 15 min to deactivate the enzyme followed by centrifugal separation to collect the resulting supernatant fraction, which is then neutralized to about pH 7 with NaOH and lyophilized. This low-bitter peptide is useful in various fields including foods, enteral nutrients, medical foods, seasonings, flavor improvers food property improvers, food additives and feed.

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